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ABSTRACT

This longitudinal study investigated the frequency and type of cross-sex peer interactions which occurred in six first grade classrooms. The effects of task structures (or patterns of instructional organization), and the impact of the racial composition of the classrooms on the frequency and type of cross-sex interactions were also explored. Ethnographic observations were completed in 30 to 90 minute sessions over a 5 or 6 month period in each classroom. Results revealed the following: (1) a child's gender had a systematic effect on his or her peer relationships, with girls playing supportive roles and having less social power in their interchanges with boys; (2) classroom organizational patterns, while influencing the frequency of cross-sex interactions, had little effect on the quality of these interactions; and (3) majority-black classrooms displayed more egalitarian interchanges between male and female students. In general, these results provide support for the study's hypotheses that within classrooms, cross-sex peer interactions would mirror traditional sex role relationships among males and females, and that female students would have less social power than males in peer interchanges. Implications of the study's results for the design of effective programs to achieve sex and race equality are discussed. (Author/MP)

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Sex Roles and Statuses in Peer Interactions In Elementary Schools

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ABSTRACT

Researchers have examined the effects of children's sex on teacher-student interactions in classrooms but rarely have analyzed cross-sex peer interactions, although peer relationships are important components of classroom social life. This qualitative, longitudinal, observational study of six first grade classrooms shows that sex has a systematic effect on peer relationships. Girls play supportive roles to boys and have less social power in interchanges with boys. Patterns of classroom organization affect the frequency, but not the nature, of cross-sex interactions. Cross-sex peer interactions generally support traditional male-female roles. Study of peer interchanges is important for understanding status relationships among male and female children and for designing effective programs to achieve sex equity.

Sex Roles and Statuses in Peer Interactions in Elementary Schools

Considerable research attention has been directed toward ways in which teachers and school administrators respond to children based on children's sex. Sex makes a difference in the types of classroom roles which children play and in the types of adult roles for which they are trained (see Sadker and Frazier, 1973; Lee and Gropper, 1974; and Guttentag and Bray, 1976, for summaries.) Recent work suggests that differential treatment male and female children by teachers might be diminishing, at least in middle class communities (see Blumenfeld et al., 1981; Parsons et al., 1981).

Far less attention has been directed toward the influence of peer interactions on children's sex role socialization in the classroom, even though the average elementary school child has more contacts each day with peers than with teachers. As Schmuck (1978) has written, for some children peer networks hold the most meaningful rewards and punishments. Peer interactions make important contributions to the overall texture of classroom social life and can reinforce, contradict, buffer, or otherwise modify the effects of curriculum and teacher-student contacts. One must take into account boys' and girls' experience in both teacher-student and peer networks to

assess their classroom status and the impact of schooling on their sex role socialization.

Researchers who have studied peer interactions usually have devoted little attention to sex effects, except to note that same-sex interactions are more common than cross-sex interactions among elementary school children (see, for example, Bossert, 1979; DeVries and Edwards, 1977; Willie and Recker, 1973). Children cross racial lines more often than sex lines in classroom interactions. In a study of children's friendship ties Eder and Hallinan (1978) found that elementary school girls formed tighter, more stable friendships than did boys, who more typically were involved in large, fluid friendship networks. None of these works, however, examines the quality of cross-sex peer interactions and their implications for the future roles of males and females. Additionally, most of this research was conducted in white classrooms. Little work has addressed cross-sex peer interactions in classrooms with greater-than-token proportions of black students.

This paper uses qualitative methods to investigate the frequency and type of cross-sex peer interactions which occur in first grade classrooms. It also examines the effects of task structures, or patterns of organization of instruction, on the frequency and type of cross-sex interactions. It explores impact of racial proportions of enrollment on such interactions. It analyzes the recurrent roles played by boys and girls and their implications for

classroom social order, for male-female power relationships, and for socialization of children to adult roles. Finally, it considers implications of observed patterns for change efforts aimed at increasing sex equity in educational systems.

It will be argued that within classrooms cross-sex peer interactions generally mirror traditional sex-role relationships among men and women and reinforce traditional patterns in children. As will be seen, this pattern is more apparent in the majority-white than in the majority-black classrooms. Female students, it will be argued, have less social power than males in peer interchanges -- a pattern which differs markedly from some descriptions of boys' and girls' status in interactions with teachers. Furthermore, peer exchanges generally are stronger supporters of traditional sex role relationships than are teacher-student interchanges or curriculum materials.

Methods and Data Source

The author completed from twenty to thirty hours of ethnographic observations in each of six first grade classrooms.' The classrooms were located in two urban school systems which served lower middle class and working class neighborhoods. Table 1 summarizes characteristics of

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'. Two classrooms (labeled A and B in tables) were observed during the 1979-80 school year as a part of the larger "Socialization into the Student Role" project directed by Drs. Steven Bossert, Phyllis Blumenfeld, and V. Lee Hamilton at the University of Michigan. Observations in classrooms C through F took place during the 1980-81

these classrooms. Three had white female teachers and three black female teachers. Black student enrollment ranged from 20 to 95 percent, with the black teachers instructing the classes with the highest minority enrollments. Most classrooms had similar proportions of male and female students, the result of district-wide policies to balance sex ratios in classrooms insofar as possible.

Classrooms varied in organization of instruction, or the task structure patterns, which they employed most often. Table 1 classifies each classroom according to its most typical task pattern, using categories proposed by Bossert (1979). These include the following:

1. Recitation: These are formal, whole-class sessions in which the teacher lectures or engages all students in question and answer sessions. Peer interactions presumably are minimized during such activities.

2. Class Task: These are sessions in which children work individually at their desks but work on the same task at the same time. Opportunities for peer interactions are greater than in recitation formats, although students generally are instructed to work on their own.

3. Multi-task: These are sessions in which children work on a variety of tasks, individually or in small groups, at a given time. Opportunities for peer interactions are greatest in this format.

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school year. Classrooms A and B were observed for 30 hours; classrooms C through F were observed for 20 hours.

As Table 1 shows, only one classroom (F) used recitation formats most frequently. Two each used class task or multi-task formats most frequently. The final one (E) used class task and multi-task formats in equal proportions.

Ethnographic observations were completed in 30 to 90 minute sessions over a five or six month period in each class. Notes taken during observation sessions were expanded into time-sequential, nonanalytical, detailed ethnographic accounts, usually within 24 hours. The investigator time-sampled so that observation sessions covered all regularly scheduled instructional activities, as well as special classes and free periods such as lunch or recess. A scanning technique was used to minimize overconcentration on particular students or sectors of the room. These notes recorded from 694 to 1,277 peer interactions in each classroom, of which from 29 to 48 percent were cross-sex (Table 2). This paper concentrates on the portion of peer interactions which were cross-sex.

Since few existing code schemes for observational data include peer interactions, codes were developed inductively from the data. Recurrent interactions were classified under 37 categories, using verbal summaries rather than numerical codes to preserve contextual detail.[3] Codes covered peer interactions which were positive, negative, and neutral in affect. They also included peer interactions which

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[3]. Complete code categories, and instructions for their use, are available from the author upon request.

encapsulated teachers in what essentially were interchanges among students. Examples were tattling about classmates' misbehaviors or enforcing a teacher rule on a peer.

Results

Proportions of Cross-Sex Interactions: Table 2 compares proportions of expected and actual cross-sex interactions which occurred in each classroom. The N's in Table 2 represent all peer interactions involving four or fewer children, coded as dyadic interchanges. Thus, if Susie, Joey, and Jill had a conversation, the exchange was coded as an interaction between Susie and Joey, an interaction between Joey and Jill, and an interaction between Susie and Jill. Interactions involving larger groups of children were not included in these tabulations. The majority of interactions in each classroom were brief, casual interchanges, such as a quick greeting, a comment about classroom life, or a moment of shared laughter.

Classrooms differed in enrollments, and in their enrollment of males and females, and thus expected frequencies of cross-sex interactions ranged from 49.5 percent to 51.9 percent. In all classrooms the proportions of cross-sex interactions were less than the proportion which would be expected by chance if sex had been independent of choice of interaction partners. Discrepancies between expected and actual rates of cross-sex interaction were greatest in the three classrooms which used recitation and class task formats for instruction (A, B, and F); they

were smallest in the classrooms using higher proportions of multi-task activities. Similar associations between classroom task structures and cross-sex interactions are reported by Bossert (1979). However, contrary to his findings, in these classrooms there appeared to be no consistent relationship between predominant task pattern and the absolute number of peer interactions. The largest numbers of peer interactions were recorded in classroom F, which used formal recitations. The numbers of interactions in this room exceeded those in classrooms A and B, which were observed for 30 rather than 20 hours.

More important for the purposes of this study than the number of cross-sex interactions were the qualitative aspects of these interactions. Particularly important were exchanges involving resources and power. Interchanges among children revealed important information about their relative social power and their modes of exercising influence. Hochschild (1975) has argued that the emotional rewards of social interaction are asymmetrically distributed. Powerful persons enjoy a disproportionately large share of awe and liking and are insulated from hostility. Low-status persons, in contrast, experience fewer rewards and greater hostility. Further, other authors (see Frieze et al., 1978; Johnson, 1976) have argued that males and females exercise different forms of interpersonal power. Men exercise direct influence over women, while women more typically exercise influence which is dependent upon an

affiliation with a powerful person. This latter type of power is akin to what Raven has termed "referent" power. As Johnson (1976) has noted, such power is less transferable to other arenas than is direct power; it is dependent on the maintenance of a relationship with the authority figure. Assessments of children's influence modes used with peers thus permits some assessment of their social power in peer networks. Those who use indirect forms of influences presumably are less powerful than those who can influence directly, without the intervention of an adult authority figure.

Qualitative aspects of cross-sex peer interactions were analyzed to determine the degree to which males and females initiated positive and negative behaviors toward one another and the degree to which they exercised influence over peers in ways which were dependent upon or independent of the teacher's authority. Despite differences in proportions of male and female students in a classroom, a cross-sex interaction theoretically had a near- equal probability of being initiated by a male or a female student. Therefore, when numerical indicators are used, they have been reported as percentages of a behaviors within a category which were female-to-male and percentages which were male-to-female. Because these classrooms differed in their internal order, their absolute rates of peer interactions, and their proportions of cross-sex peer

interactions, comparisons across classrooms have not been made. Rather, proportions are reported for each classroom.[3]

Helping Behaviors

Hochschild suggests that powerful persons will receive more aid from others than they will dispense. Two types of recurrent peer interactions in these classrooms were indicative of such helping relationships: academic aid and nonacademic aid.

Helping behaviors which made direct contributions to a student's ability to complete his or her school work were classified as academic aid. Examples included answering questions about content or procedures for an assignment, correcting errors on a peer's paper, forwarding a question to the teacher, or offering one's own work as a model. Helping behaviors which contributed to a child's well-being and social comfort in the classroom, but were not directly related to the performance of school work, were classified as nonacademic aid. Examples were tying a shoe for a peer, helping a classmate clean out a desk, joining a search for a lost pencil, or comforting a child.

As N's in Table 3 show, such behaviors were not common, ranging from a low of only 12 to a high of 39 in the six

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[3]. It should be noted that these numerical indicators are not sample data, but rather are what Becker (1958) has termed "quasi-statistics." Ethnographic data are not the equivalent of random samples. Nevertheless, it is possible to sum and compare recurrent, straightforward behaviors. Becker cautions, however, that such quasi-statistics must be regarded as components of descriptive materials, to be used with contextual information, rather than as data which can be subjected to statistical analysis.

rooms. In all classrooms except one (E), female students gave more academic help to male classmates than they received from them in return. In some rooms the difference was substantial, as in classroom B where 93.7 percent of the cross-sex academic helping interactions were female-to-male.

A similar pattern appeared for nonacademic helping interactions, where female-to-male aid was more frequent than the reverse in all classrooms except D and E. Notably, sex differentials on these behaviors were lower in the two classrooms (E and F) which had majority-black enrollments and black teachers. In terms of helping relationships, the majority-black classrooms were more egalitarian.

Thus, in most classrooms male students received more instrumental academic aid and personal support from female classmates than they gave to them--an indication of their greater power according to Hochschild's theory.

Contextual factors, however, suggested the meaning of these helping behaviors to children could be complex. Helping behaviors sometimes were means for female students to demonstrate competence and/or loyalty to teachers, as in the two following examples, both from classroom C.

> Hilary (female) grabbed the arm of Larry (male) as he was about to approach the teacher to have work checked. Hilary told him: 'Wait a minute, you'd better let me look those over.' Larry slowly handed his paper to Hilary, who examined it carefully. A moment later she called out in a loud voice audible to the teacher and most classmates: 'Aha. You messed two of them up. It sure is good that you let me check that over.'

> Charlotte stood at the front of the line as the class lined up for recess. After the teacher told children to 'be sure to bundle up because it's awfully cold out there today,' Charlotte moved down the line of students to tie the hood of Philip's coat and to urge Brent to put his gloves on. The teacher smiled broadly at her.

A minority of the female-to-male helping relationships involved such bids by students to attract their teachers' favorable attentions and/or to call attention to errors made by other students. Males in each room engaged in such activities less frequently. Nevertheless, most helping behaviors appeared in context to be legitimate attempts to aid a peer.

Praises, Criticisms, and Boasts

In another series of recurrent behaviors students made direct comments about their own efforts or those of fellow students. Students praised and criticized one another for academic work, athletic skills, conformity to rules, style of dress, or aspects of grooming and personal demeanor. Students also boasted to one another about their competencies in particular areas. These interchanges provided gratifications or negative feedback to children.

Table 4 reports interchanges of this sort in the six classrooms. As can be seen in the first panel of Table 4, praise was infrequent in most classrooms, and no instances of praise of peers were recorded in two of them (A and E). In the three classrooms where it did occur, females praised males more than the reverse. In classroom D the three instances of cross-sex praise all were female-to-

male. Classroom F, the room with the 95 percent black enrollment, showed the opposite pattern. Here about 83 percent of praise behaviors were male-to-female. Because the N's of cross-sex praise were so small, however, these patterns must be interpreted with caution. Moreover, most instances of cross-sex praise (unlike many of those involving female students only) were brief: a nod of approval for a nicely-done handwriting paper or a quick "That's good" for a perfect score on a spelling test.

The second panel of Table 4 shows instances of cross-sex criticism among students in each room. Criticism was somewhat more frequent than was praise. In four of the six rooms female students criticized males less than they were criticized by males. In one (classroom A) the female-to-male and male-to-female rates were equivalent. In classroom C, females criticized males more frequently than they received males' criticism.

In contrast to praises, however, criticisms were apt to be vehement, as in the following example from classroom E (to Marianne from Mike):

> Are you ever dumb. You missed four (parts of a sentence-completion exercise the class was assigned), and you even colored everything the wrong color.

Two infrequent, but especially powerful, types of criticisms were invariably male-to-female. The seven racist remarks and eight sexist remarks recorded in observational notes were all made to females by males and typically occurred in an identifiable context. A male made the remark

to a female student who was his academic superior, often shortly after the teacher had praised the girl for achievement. The teacher in classroom A, for example, complimented Pamela (black female) on her drawing and story about "adult workers" and invited her to hang it on a bulletin board which bore the label "Our Best Work." As Pamela returned to her desk Kevin (white male) called to her: "I sure ain't going to work for any stupid black people when I grow up." The incidents were similar to what Schofield (1976) found among junior high school students. She termed them "appealing to one's strong suit," or bringing to bear the seemingly irrelevant statuses of male and white to exercise dominance over a child holding statuses which were devalued in the larger society.

The righthand panel of Table 4 reports instances of cross-sex boasting or bragging, which occurred from 11 to 25 times in each of these rooms. In all classrooms males were more likely to brag to females than the reverse. Once again, however, the differentials were smaller in the majority-black classrooms than in the others.

Females often were unsuccessful when they attempted to boast to males, as in this example from classroom B:

> Patsy shows Rudy her math paper, pointing out to him that the teacher has marked it 100 and drawn a smiling star on the top of the paper. Rudy replies: 'So what's the big deal? I always get a star on my (math) papers.'

In nearly 40 percent of the cases when female students attempted to brag to males, they received such rebuffs.

Rebuffs occurred in less than one-tenth of males' boasts to females. Boys and girls also boasted to one another about different issues, with boys most often bragging about academic or athletic achievement and girls about conformity to rules: "The teacher said I was the only one who didn't talk during the movie" (Melanie to Greg in classroom F).

On the whole, then, boys were advantaged in comparison to girls in cross-sex praise, criticism, and boasting behaviors. They received more praise and emotional gratification from girls than they gave to them in return. They were targets of criticism more often than perpetrators in cross-sex interactions. However, once again the majority-black classrooms showed less marked sex differences on these behaviors than did the majority-white rooms, indicating more egalitarian relationships among boys and girls in the majority-black classrooms.

Exercises of Power

In these classrooms students exercised power over one another most commonly in one of four ways: enforcement, tattling, physical aggression, or verbal aggression. The first two were teacher-dependent methods and required the actual or symbolic backing of the teacher to carry them out successfully. The latter two were more independent actions.

Enforcements were instances in which a student attempted to gain compliance with teacher rules or procedures among peers. For present purposes, only student-initiated enforcements were considered. Excluded were times

when teachers requested that students enforce rules (e.g., asked a child to remind a classmate not to talk during reading). Enforcements demonstrated loyalty to the teacher and her or his set of rules but relied on the authority of the teacher to back up the action. In some instances, enforcements were quite emphatic, as when Sarah in classroom B threatened to "beat up and call the police on" two male classmates who tapped their feet on the floor in a rhythmic pattern as they worked.

Tattles were instances in which students informed the teacher about peers' misbehaviors. Although contextual materials suggested that tattling stemmed from various motivations, these behaviors again demonstrated loyalty to the teacher and classroom rules but evoked the teacher's power to exercise influence over a peer.

All instances in which students used physical power to exercise influence over a peer were classified as physical aggression. Thus, this category included such behaviors as hitting, kicking, slapping, pushing, poking, pulling hair, bumping. Physical contacts were not included in this category if examination of context suggested they were intended as horseplay rather than hostile interchanges, for example, the gentle jostling (accompanied by giggles) between Jimmy and Lucia to get to the front of the lunch line.

Verbal interchanges involving hostility were classified as verbal aggression. Unlike other power exchanges, however,

it frequently was difficult from the observer's perspective to determine the instigators of verbal aggression. Most such interchanges caught the observer's eye when they already were in progress.

Teacher-Dependent Power: Table 5 shows males' and females' use of influence attempts with peers involving the teacher-dependent methods of enforcement and tattling. The proportions shown for enforcements are quite striking. In all classrooms, female students were more likely than their male peers to use this tactic in cross-sex interactions. In classroom E all 16 of the enforcement attempts were female-to-male.

Females tattled on male classmates more so than the reverse in four of the six classrooms. It should be noted that teachers varied substantially on their formal and informal rules about tattling and in their responses to this activity. The teacher in classroom D, for example, more frequently reprimanded the child who tattled than punished the target. Enforcements, however, were rarely overruled by teachers.

Direct Power: Table 6 reports involvements of male and female students in cross-sex physical aggression. In all classrooms, the majority of physical aggression was between male students alone. Female-to-female physical aggression was rare (accounting for no more than 4 percent of such interchanges in any classroom). In the cross-sex encounters, however, male students were instigators more frequently in

all but two classrooms (C and D). In classroom A, males instigated 90 percent of the cross-sex physical aggression.

Male-to-female physical aggression sometimes could be quite severe. When Maria, in classroom B, accidentally knocked Clint's paper off his desk, he grabbed her arm and pulled it behind her back. Harold, who sat nearby, punched Maria sharply on the arm. The classroom teacher, who had watched the entire incident, called to the group: "Maria, what seems to be the matter over there at Table 3?"[4] In contrast, female-to-male physical aggression tended to be mild and often came in response to verbal or physical harassment on the part of a male student, as in classroom A where Wendy slapped gently at Matt's arm and told him "Don't" as he dropped shavings from a small pencil sharpener into her hair.

It was possible to determine the instigator with certainty in less than 20 percent of the cross-sex verbal aggression. These interchanges have not been reported in tables. In four of the six classrooms, however, males instigated cross-sex verbal aggression more often than females, although proportional differences were small. Boys were particularly likely to interrupt girls or initiate teasing. In the two majority-black classrooms, however,

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4. This response was not the most frequent one, and teachers usually reprimanded perpetrators of physical aggression when they observed it. However, similar sequences occurred six times in four of the classrooms. Teachers implicitly attributed a portion of the blame for the unruly incidents to females, even when they observed that the girls were the victims.

females instigated cross-sex verbal aggression slightly more often than males. The ethnographic notes revealed that girls in these classrooms frequently used verbal aggression to retaliate against male classmates' physical aggression, as when Kitty in classroom F gave a lengthy tongue-lashing to Herbert after he had kicked her.

Summary

Examination of cross-sex peer interactions revealed systematic patterns based on children's sex. Girls played caretaker/helpmate roles to boys, enhancing their academic performances and providing them with emotional gratifications. These behaviors generally were not reciprocated. The interaction patterns are indicative of greater social power of males in comparison to females in cross-sex exchanges in schools. They also are consistent with traditional relationships among adult men and women, in which women play wife-supporter roles to men rather than invest energies in their own achievement.

Girls experience more hostility, and receive less deference and awe, than do boys in cross-sex interactions, as evidenced by their overrepresentation as victims of criticism, racist and sexist remarks, and physical and verbal aggression. These patterns also replicate relationships among adult men and women (see Frieze et al, 1978). Girls seemingly exercise power over boys in cross-sex classroom interactions most effectively in situations where the teacher is likely to back them up, such as rule

enforcement. Boys, in contrast, more frequently exercise direct power and are less dependent on the backing of the teacher. The need to appeal to a higher, more legitimated authority as a source of power can be seen as an indication of lower status and power of girls in peer networks. These discrepancies between male and female students are less pronounced in the majority-black than in the majority-white classrooms, again indicating more egalitarian relationships and less differentiation by sex in the mostly black classrooms.

Cross-sex peer interactions therefore mirror traditional patterns of relationships among men and women, rather than offering alternative models. The status of females is less favorable in cross-sex peer interactions than in interactions with teachers. Indeed, the patterns apparent in these classrooms call for reconsideration of conclusions of some earlier studies that female students are systematically advantaged in classroom social life (see, e.g., Sexton, 1969).

Classroom organizational patterns influenced the frequency of cross-sex interactions but seemingly had little effect on their quality. Racial proportions of students might have had an effect, however, since the majority-black classrooms displayed more egalitarian interchanges between male and female students.

The results of this study should be interpreted with some cautions. First, patterns among first graders might not

hold for children of all age levels. Second, these patterns might not appear in all communities. The classrooms in this study served working-class communities. Third, it is important to note that the finding that cross-sex interactions in these classrooms reflected a devalued status for females in no way implies that teachers, school administrators, or curriculum created or magnified these patterns. In most instances teachers and administrators favored and promoted more sex-equitable relationships than did interchanges among male and female students. Students likely had established such cross-sex interaction patterns before entering schools, and their sex role socialization continues to be affected by such institutions as family, the media, churches, peer groups, and the like.

Implications for Change Strategies

Although some change efforts have recognized that peer interactions hold great potential for the success or failure of an intervention (see, for example, Guttentag and Bray, 1976), most have concentrated on altering aspects of curriculum or teacher-student relationships. Almost none have attempted to alter patterns of peer interactions, although this tactic has been employed in programs to achieve race equity (see, for example, Cohen, 1980).

This study suggests that change strategies might usefully begin with the assessment of peer relationships which have an impact on issues of sex equity. Once such patterns are understood, one can better propose methods for

change. Increasing the frequency of cross-sex interactions--an implicit goal of many change efforts--may be a necessary step for achievement of sex equity, but not a sufficient one if the increased interchanges merely reinforce traditional patterns.

Many change efforts view young elementary school children as impressionable and easily persuaded by alterations of curriculum or teacher behaviors. Teachers and administrators therefore do not generally intervene actively to contradict sexist language or practices among children. In these classrooms, for example, all teachers moved quickly to contradict a remark or action which might be construed as racist. They then reprimanded the perpetrator and defined for all students the unacceptability of such behaviors. Sexist behaviors, in contrast, were dealt with more casually. Most either were ignored or were rebuked in the mildest terms. When Charles in classroom E called out that girls could not be heliocopter pilots, his teacher laughed and responded that "You might be surprised at some of the things girls can do, young man. Active countering of pervasive sexism seems a useful component of such change strategies.

Planners of change strategies might usefully study the social dynamics of majority-black classrooms, where peer relationships were more equitable. Interestingly, black students enrolled in the majority-white classrooms displayed cross-sex interaction patterns which were more egalitarian

than those of their white classmates but less egalitarian than those of black children in majority-black classrooms. This suggests that the differences cannot be wholly accounted for by systematic differences in the socialization patterns of daughters and sons by black and by white parents. The social contexts of black classrooms as they support more equitable relationships deserve closer research attention.

In this study teachers were generally unaware that male and female students played systematically different roles in classroom peer networks, although the patterns made sense to them when the data analysis was completed. An important step in successful change might be the training of teachers and administrators to recognize subtle forms of sex stereotyping in peer interactions. Teachers in this study, for instance, indicated a number of alterations they might make in classroom practice which would foster more equitable relationships, such as appointing males more frequently to help females on academic work, discouraging females from assuming the rule enforcement role, or confronting sexist remarks and actions directly. Many realized that they were covertly reinforcing sex-typed behaviors, although their personal philosophies were more supportive of flexible sex role behaviors.

Reversal of subtle, but pervasive and powerful, interaction patterns among peers which support the status quo likely requires more substantial interventions than

alteration of curriculum alone. Alteration of classroom tasks and organizational patterns and initiation of expectation retraining which have been used to improve race equity offer useful models. Alteration of out-of-classroom structural arrangements in schools, such as authority relationships among male and female adults in schools, might be necessary. Implementation of such changes might require the building of social and political support for change beyond the walls of the school.

Planners of change strategies might seek ways to build their efforts upon communication and influence patterns already existing in peer networks. Guttentag and Bray (1976), for example, discovered that under some conditions peer networks worked to enhance, rather than resist, the desired change. The literature on adoption of innovation suggests that the responses of a few socially powerful, highly visible, peers often is a critical factor in the success or failure of a venture. One might identify individual children who are potentially powerful in peer networks and devote efforts to enlisting them as supporters rather than resisters.

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Table 1: Teacher, Student, and Task Characteristics of Six Classrooms

Classroom	Teacher Race	Typical Task Structure[a]	Number of Males	Number of Females	% Black Students
A	White	Class Task	13	14	22.2%
B	White	Class Task	14	11	20.0%
C	White	Multi-Task	8	12	20.0%
D	Black	Multi-Task	13	8	28.6%
E	Black	Class Task/ Multi-Task-	9	15	53.8%
F	Black	Recitation	10	12	95.5%

a. Coded as the most frequently-used task structure pattern during the observation period according to the classification scheme proposed by Bossert (1979). Classroom E spent the exact same proportions of time in class task and multi-task.

Table 2: Number of Peer Interactions, Percentages of Expected Cross-Sex Interactions, and Percentages of Actual Cross-Sex Interactions in Six Classes

Classroom	Number of Interactions	% Expected Cross-Sex	% Actual Cross-Sex
A [a]	1,049	51.9%	40.9%
B	902	51.3%	42.8%
C	701	50.5%	43.1%
D	1,151	49.5%	39.7%
E	694	50.8%	47.5%
F	1.277	51.9%	29.3%

[a] Totals for Classrooms A and B are based on 30 hours of observation; Totals for all other classrooms are based on 20 hours.

Table 3: Percentage of Female-to-Male and Male-to-Female Cross-Sex Helping Behaviors

	Academic Help[a]			Nonacademic Help[b]	
Classroom	N	Percent F-to-M	Percent M-to-F	N	Percent F-to-M	Percent M-to-F
A	17	70.6%	29.4%	22	81.8%	18.2%
B	15	93.7%	6.3%	12	75.0%	25.0%
C	12	75.0%	25.0%	18	66.7%	33.3%
D	31	55.8%	44.2%	15	21.4%	78.6%
E	9	12.5%	87,5%	15	46.7%	53.3%
F	39	52.0%	48.0%	18	62.5%	37.5%

a. Aid helpful in completing lessons: answering questions, explaining directions, forwarding questions to the teacher.
b. Aid not directly related to academic work: finding lost articles, comforting a peer helping tie shoes.

Table 4: Percentage of Female-to-Male and Male-to-Female Cross-Sex Interactions Involving Praise, Criticism, and Boasts

	Praise			Criticism				Boasts	
Classroom	N	Percent F-to M	Percent M-to-F	N	Percent F-to-M	Percent M-to-F	N	Percent F-to-M	Percent M-to-F
A	0	0%	0%	4	50%	50%	25	40.0%	60.0%
B	4	75.0%	25.0%	9	33.3%	66.7%	11	27.3%	72.7%
C	8	62.5%	37.5%	36	58.3%	41.6%	34	27.8%	72.2%
D	3	100%	0%	1	30.0%	70.0%	14	21.4%	78.6%
E	0	0%	0%	18	38.5%	61.6%	15	40.0%	60.0%
F	6	16.7%	83.3%	24	20.8%	79.2%		38.5%	61.5%

Table 5: Percentage of Female-to-Male and Male-to-Female Cross-Sex Enforcement and Tattling Behaviors

	Enforcements			Tattles		
Classroom	N	Percent F-to-M	Percent M-to-F	N	Percent F-to-M	Percent M-to-F
A	33	66.7%	33.3%	20	80.0%	20.0%
B	58	81.0%	19.0%	26	57.7%	42.3%
C	25	80.0%	20.0%	14	78.6%	21.4%
D	40	60.0%	40.0%	21	33.3%	67.7%
E	16	100.o%	0%	23	69.6%	30.4%
F	21	61.9%	38.1%	43	44.2%	55.8%